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HANDBOOK ON SANITATION OF RAILROAD PASSENGER CAR COSTRUCTION. STANDARDS OF SANITATION APPLICABLE TO THE CONSTRUCTION OF RAILROAD PASSENGER AND DINING CARS

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HANDBOOK ON SANITATION OF

Railroad Passenger Car Construction

STANDARDS OF SANITATION
APPLICABLE TO THE CONSTRUCTION OF
RAILROAD PASSENGER AND DINING CARS

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**U. S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE**

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DIVISION OF SANITARY ENGINEERING SERVICES

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FOREWORD

It is generally recognized that sound sanitation practices are an important factor in good service, and that healthful, safe, and enjoyable travel is a product of good service and the proper installation and use of equipment. It is more practical, too, to "build in" facilities which will permit the practice of sound sanitation principles than it is to make costly changes later.

Therefore, with the object of prescribing the application of sound sanitary principles to the construction of railroad passenger cars, this handbook has been prepared by the Interstate Carrier Branch of the Division of Sanitation, Public Health Service, for use by railroad personnel, car builders, suppliers of railroad equipment, and the Public Health Service personnel. This is one of a set of three handbooks related to railroad sanitation. One of these, "Dining Cars in Operation," sets forth sanitation standards for operation. Another, "Railroad Servicing Areas," is concerned with sanitation in the yard or station, or wherever water, food, or milk is loaded, and in those places where wastes are removed from cars.

The principles, or standards, of sanitation appearing in this handbook are intended to serve as a guide to those persons charged with the responsibility of incorporating provisions for sanitary equipment in the design or construction of railroad passenger cars and the reconstruction of existing cars.

It should be understood at the outset that the standards appearing on the following pages, although not having the legal force of the Interstate Quarantine Regulations, were written with a view to conforming to the intent of those regulations. Compliance with the standards, therefore, will insure compliance with the Interstate Quarantine Regulations and amendments. In the event of noncompliance with a standard, however, and failure to correct the reported condition, final corrective action will be based upon the applicability of the regulation concerned. Amendments to the Interstate Quarantine Regulations issued through April 1951 were considered in the preparation of this handbook.

Improved methods and equipment, undoubtedly, will be developed from time to time, resulting in changes in the application of the standards as they now exist. These developments will be noted and, as circumstances require, supplements to or revisions of this handbook will be issued.

Insofar as reference to design, construction, and reconstruction of railroad passenger cars is concerned, this handbook supersedes the "Sanita-

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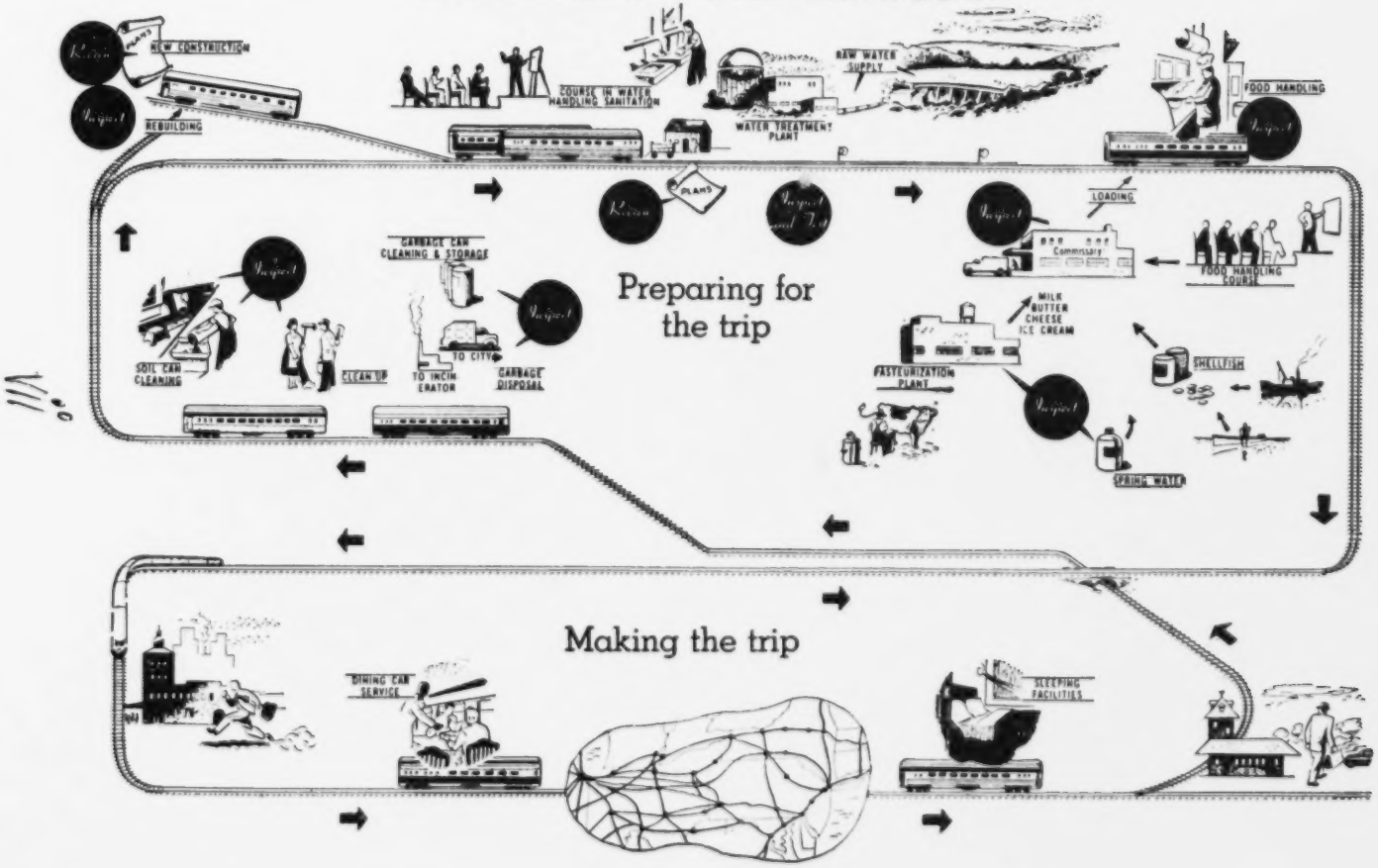
tion Manual for Land and Air Conveyances Operating in Interstate Traffic," Reprint No. 2444, from Public Health Reports of January 29, 1943.

The Joint Committee on Railway Sanitation of the Association of American Railroads, and the railroad passenger car building firms, have been extremely helpful in reviewing the preliminary draft of this handbook, and their suggestions for improvements have made it possible to produce a more practical handbook than could otherwise have been the case.

RAILROAD SANITATION



APPLICABILITY OF THIS HANDBOOK

The standards of sanitation contained in this handbook apply to all new railroad passenger cars to be constructed hereafter. These standards also apply to existing cars on which the sanitation equipment or facilities are hereafter to be replaced or reconstructed.

For the purposes of this handbook, railroad passenger cars are considered to mean all railroad cars on which passengers are transported by an interstate carrier.

An interstate carrier is defined as any company or firm which honors through-bills of lading or tickets that have been issued on an interstate basis, whether or not the conveyances operate on an interstate basis.

LEGAL DEFINITION OF INTERSTATE TRAFFIC:

INTERSTATE QUARANTINE REGULATIONS—SUBPART A—72.1 (*i*):

"The movement of any conveyance or the transportation of persons or property, including any portion of such movement or transportation which is entirely within a State or possession, (1) from a point of origin in any State or possession to a point of destination in any other State or possession, or (2) between a point of origin and a point of destination in the same State or possession but through any other State, possession or contiguous foreign country. Interstate traffic does not include the following: (1) The movement of any conveyance which is solely for the purpose of (i) unloading persons or property transported from a foreign country, or (ii) loading persons or property for transportation to a foreign country. (2) The movement of any conveyance which is solely for the purpose of effecting its repair, reconstruction, rehabilitation, or storage."

CONSTRUCTION PLANS

INTERSTATE QUARANTINE REGULATIONS—SUBPART G—SECTION 72.147:

"*Submittal of construction plans:* Plans for the construction or major reconstruction of sanitary equipment or facilities for such conveyances shall be submitted to the Surgeon General for review of the conformity of such plans with the requirements of this subpart, except that submittal of plans shall not be required for any conveyance under reconstruction if the owner or operator thereof has made arrangements satisfactory to the Surgeon General for inspections of such conveyances while under reconstruction for the purpose of determining conformity with those requirements."

Plans (including complete specifications, where available, and drawings) for the construction or major reconstruction of sanitation equipment and facilities on cars on which passengers are to be transported should be sub-

mitted to the Public Health Service for review. However, in cases where plans are not normally prepared for reconstruction work, arrangements may be made with a representative of the Public Health Service to discuss changes before construction begins and to inspect conveyances while they are under construction in lieu of plan submittal.

Although the carrier is responsible for submitting plans, he may request the builder to submit them. Plans generally should be sent to the appropriate Public Health Service regional engineer. In the case of plan submittal directly by car builders, the appropriate regional engineer is the one serving the area in which the car building plant is located. For plan review purposes, one set of plans will suffice.

Plan review reports will be sent to the carrier, the builder (if other than the carrier), and to the appropriate field personnel of the Public Health Service. However, because the details of all items relating to sanitation equipment and facilities are not always complete, and since unforeseen circumstances sometimes require changes during construction, provisions are made for inspection of cars while under construction or reconstruction. Inspections of cars under construction or reconstruction will be made by a representative of the Public Health Service regional engineer having jurisdiction over the area in which the shops or plants doing the work are located. Carriers and builders should avail themselves of consultative and early inspectional services of the Public Health Service in order to prevent the building in of sanitary defects which might require costly changes. A qualified carrier representative should, whenever practicable, accompany the Public Health Service representative on inspections of cars in order for the carrier to have a clear understanding of any unsatisfactory features that may be noted during the inspection.

A Certificate of Sanitary Construction will be issued for each new or reconstructed car found, upon inspection, to conform to the construction standards of the Public Health Service. It is believed that builders will find it advantageous to request the Public Health Service to issue the certificate because it will indicate to the carriers that construction is satisfactory from a public health standpoint.

Section I. GENERAL STANDARDS APPLYING TO ALL TYPES OF RAILROAD PASSENGER CARS

1. WATER SUPPLY FACILITIES. (A) All water distribution pipes and tubing should be of an impervious, nontoxic material. Threaded ferrous pipe and fittings should be galvanized to prevent rusting.

(B) The water system, whether pressure or gravity type, should be closed from the car filling connection to the discharge taps. However, vent openings will be permitted wherever necessary if they are protected from contamination.

(C) Car filling connections through which potable water tanks are filled should be provided on both sides of each car for each type of water system. Such connections should be so located and protected as to minimize the hazard of their contamination by toilet hopper discharges, road bed dust and dirt, etc.

(1) The car filling connection should be constructed so as to permit a direct and tight connection with the water hose nozzle. Only one type of car filling connection should be provided on any one car; except that on cars which carry both gravity and pressure water systems, one type of connection for each type of system may be provided if such connections are provided on both sides of the car.

(2) If a male-type car filling connection is used, it should be completely enclosed in a metal receptacle with a spring-loaded or self-closing cover for protection against contamination. The receptacle should be so constructed that pooling of water within the receptacle cannot take place.

(3) If a female-type car filling connection is used, it should have an overlapping spring-loaded or self-closing cover on the end, or should be otherwise enclosed for protection against contamination.

(D) All plumbing fixtures should be installed so that they, and the immediate areas around them, can be easily cleaned. All piping to plumbing fixtures should be either enclosed or located above the floor at a distance which permits thorough cleaning.

(E) Water storage tanks should be designed so they can be sterilized and flushed, and they should be equipped with a drain which permits complete drainage of the tank.

(F) Strainers, if provided, should be of the removable, perforated metal type and should be easily accessible.

(G) Since water must be safe in quality and handled in a sanitary manner before it can be considered acceptable for use, filters are not necessary. A hazard to an otherwise safe supply of water on the car might be introduced if the units are contaminated during servicing. If filters are provided, they should be of the removable type and should be (1) constructed so they can be cleaned and sterilized, or (2) constructed so they can be replaced with sterilized units.

(H) Water coolers should be an integral part of the water system. The water compartment should consist of an enlarged pipe, coil, pan, or tank. The cooler should be of durable, rust-resistant material, and so constructed as to prevent the refrigerant from coming into contact with the potable water. If ice is to be used as the refrigerant, the ice compartment should be reinforced and should be provided with a separate drain. Water coolers in which the ice is in direct contact with the drinking water are entirely unsatisfactory. Dispensers for single-service drinking cups and receptacles for the used cups should be installed adjacent to the water coolers, unless the coolers are equipped with fountains or the water is used only for table or counter service. Removable water coolers are acceptable only where there is no other water system on the car, e. g., cars on some commuting trains. Inverted bottle water coolers or dispensers which utilize fixed dispensing devices are not acceptable.

(I) All parts of car water systems, including tanks and the distribution system, should be sterilized with chlorine or steam before cars are placed in operation.

2. TOILET AND LAVATORY FACILITIES. (A) Toilet hoppers should be designed to prevent accumulation of fecal matter on the sides of the bowl. Water-flushed toilet hopper valves should be constructed to deliver an ample volume of water at a rate which will thoroughly flush the fixture at each operation. In pressure- or gravity-type water systems, a backflow preventer (vacuum breaker) should be provided for each hopper; however, when the water system is gravity-type and the air inlet to the vent is located higher than every water discharge outlet of the system, the vacuum breaker may be omitted. The backflow preventer should be located on the discharge side of the hopper valve, with the bottom of the backflow preventer at least 4 inches above the flood level or overflow rim of the hopper. Toilets of the dry hopper type are acceptable only on cars, such as commuting cars, which have no water systems. A toilet-paper holder should be installed next to each toilet hopper. Doors to toilet rooms should be provided with locks if no other provisions are made to prevent hoppers from being discharged on the ground surfaces in restricted areas.

(B) Lavatory facilities (wash basins) should be permanent installations of durable and easily cleaned construction. Folding wash basins are acceptable. Water inlets to each basin should terminate at least 1 inch, or

twice the diameter of the inlet, whichever is greater, above the flood level or overflow rim of the basin; otherwise, a properly installed backflow preventer (vacuum breaker) should be provided. A holder or dispenser for soap, and a clean towel receptacle, should be located next to all lavatories or wash basins. A soiled towel receptacle also should be provided, unless another receptacle suitable to receive soiled towels is convenient to the facility.

(C) Dental bowls, where provided, should be equipped with backflow preventers (vacuum breakers) unless all water inlets to the bowls terminate at least 1 inch, or twice the diameter of the inlet, whichever is greater, above the overflow rim of the fixture.

(D) A nonporous material, such as rubber tile, asphalt tile, or linoleum, should be used for the floors of toilet and lavatory rooms. Joints between the floors and side walls should be rounded.

3. VENTILATING AND HEATING. All cars should be constructed so they can be provided with an adequate supply of fresh or conditioned air at all times and with adequate heat in cold weather.

Section II. COACHES

The general standards listed in Section I apply to the construction of all coaches.

Section III. SLEEPING CARS

The general standards listed in Section I apply to the construction of all sleeping cars. The following additional standards also will apply:

1. LINEN LOCKERS. Separate storage spaces, equipped with a door or doors, should be provided for storage of clean linens and soiled linens.

2. DRINKING WATER FACILITIES. Circulating refrigerated water systems are considered more desirable than carafes for supplying drinking water to occupants of bedrooms, drawing rooms, compartments, roomettes, etc. When used for serving drinking water, carafes should be provided with a closure, a top, or a cover which protects the pouring lip from contamination, or should be stored in separate cabinets provided for this purpose. In cars equipped with a circulating ice water system, carafes for emergency use should be stored in a clean, protected space.

Section IV. DORMITORY CARS OR DORMITORY PORTIONS OF COMBINATION CARS

The general standards outlined in Section I apply to the construction of all dormitory cars or the dormitory portions of combination cars. The following additional standards also will apply:

1. LINEN LOCKERS. If linen is stored on dormitory cars, separate storage spaces, equipped with a door or doors, should be provided for storage of clean linens and soiled linens.

2. CREW'S CLOTHING LOCKER. If storage lockers for the crew's clothing are provided, they should be properly ventilated.

3. VENTILATION. Special attention should be given to proper ventilating of dormitory spaces.

Section V. LOUNGE, CLUB, AND PARLOR CARS

The general standards listed in Section I apply to the construction of all lounge, club, and parlor cars. Those listed in paragraphs 1 (A) through 1 (C) of this section also apply.

The standards listed in Section VI apply to the construction of the food or drink handling areas of all lounge, club, and parlor cars.

1. BARBER SHOP. (A) Separate storage spaces, equipped with a door or doors, should be provided for storage of clean linens and soiled linens.

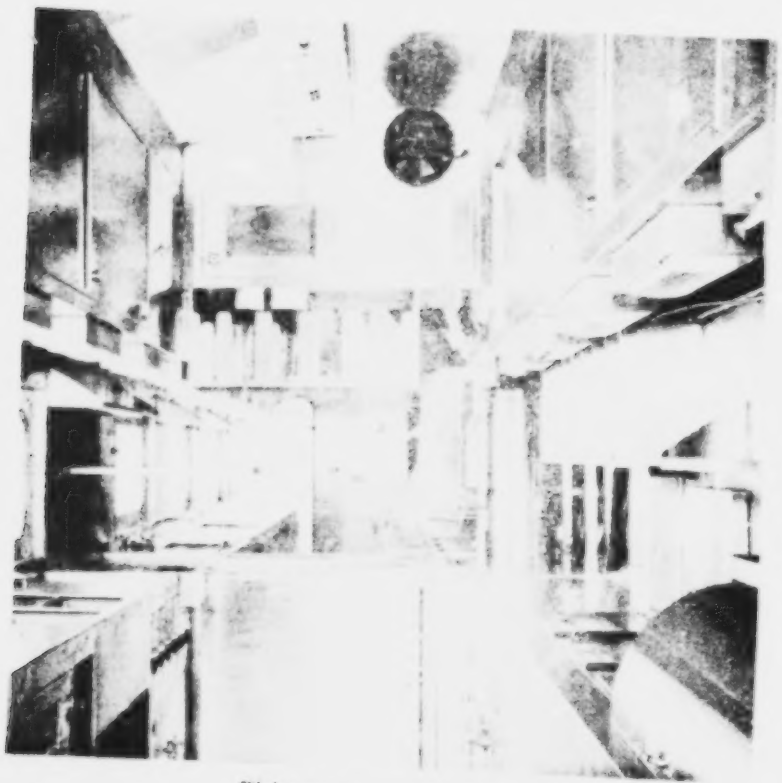
(B) The headrest of barber chairs should be constructed so that they can be covered with a clean towel or sheet of paper for each patron.

(C) Equipment should be provided for sterilizing all brushes, combs, razors, clippers, scissors, tweezers, buffers, etc.

Section VI. DINING CARS AND BAR CARS

The general standards listed in Section I apply to the construction of all dining cars and bar cars. In addition those standards listed in paragraphs (1) through (18) below also apply.

The standards enumerated below apply to all dining cars and the areas in all other cars where food and/or drink are prepared, stored, or served.



Dining car pantry and kitchen.

1. FLOORS. (A) The floors of all areas in which food or drink is stored or prepared should be smooth, nonporous, and easily cleaned. Floors may be metal, metal covered with linoleum, rubber tile, or some other nonporous substance. Removable floor racks of suitable material and easily cleaned construction may be used. The floors should be sloped to one or more centrally located drains. Drains to the outside of the car should be constructed so as to prevent the infiltration of dust into the car.

(B) The floors, except for those areas in which food or drink is prepared or stored or utensils are washed, may be covered with carpet.

2. WALLS AND CEILINGS. (A) Walls and ceilings in areas where food or drink is stored or prepared should be smooth, light in color, and washable. Joints should be tight, or seams should be filled and finished to a smooth surface, to facilitate cleaning and to prevent infestation by or harborage for insects.

(B) Spaces between pieces of equipment, or between a piece of equipment and a wall, should be enclosed unless they can be easily cleaned.

(C) All exposed joints between equipment and the floor, equipment and the walls, or the walls and the floor, should be rounded with not less than ¼-inch radius.

3. DOORS AND WINDOWS. Windows and doors of cars in which food or drink is stored, prepared, or served should be constructed so as to be reasonably dust-tight.

4. LIGHTING. (A) In areas where food or drink is prepared, artificial light sources should produce at least 10 foot-candles of light on all working surfaces.

(B) At the floor level in all walking areas of kitchens, pantries, and bars, artificial light sources should produce at least 4 foot-candles of light.

(C) All refrigerators should be provided with an interior light or lights.

(D) In areas where food or drink is served, the intensity of artificial light sources may be determined by the individual carrier.

5. VENTILATION. (A) All areas where food or drink is prepared or served, or in which utensils are washed, should be kept reasonably free of disagreeable odors, condensation, and excessive heat, through proper ventilation.

(B) The following suggestions are offered for consideration in planning the ventilation and heat control of areas where food and drinks are prepared:

(1) An abundant supply of filtered air may be necessary for ventilating the kitchen and pantry areas effectively. If outside air is added, a heating device, preferably thermostatically controlled, should be provided for warming the air during the winter months.

(2) Since the range is the major source of heat in the kitchen, an air exhaust should be located above or behind the range.

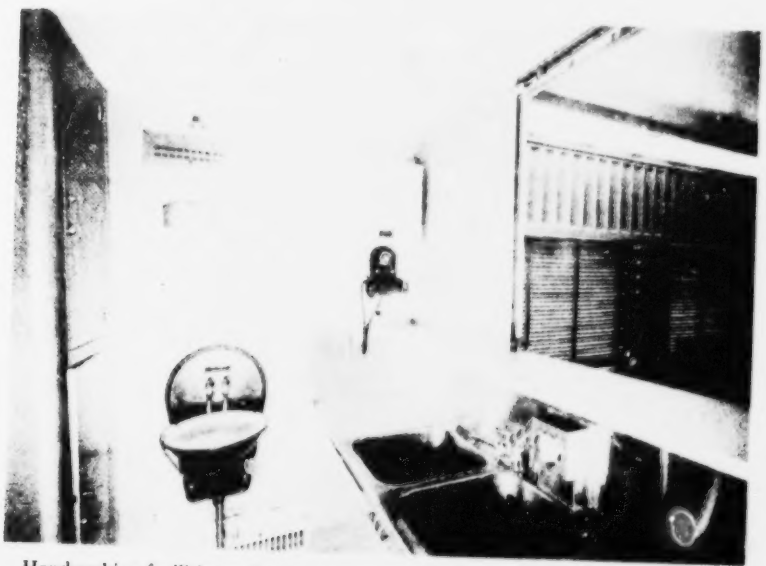
(3) The broiler should be covered and, wherever possible, the range, broiler, and other heat sources, such as smoke stacks, hot water pipes, etc., should be properly insulated. In a reconstruction job where the cooking equipment is uninsulated and is not to be replaced, it is recommended that insulating shields be placed at the oven, fire box, charcoal broiler, and any other source of intense heat, and that the shields be constructed so as to permit easy cleaning. The replacement of coal-fired equipment with gas, oil, or electric ranges and broilers, which produce less radiant heat, may be desirable.

6. TOILET FACILITIES. Toilet facilities for the exclusive use of food or drink handling crews are not required. However, toilet facilities available to these crews are to be provided and should be convenient to the food or drink service area on the train.

7. WATER. (A) Hot water (minimum 100° F.) and cold water should be piped to all areas in which food or drink is prepared or utensils washed. Water storage facilities should be large enough to provide a quantity

of water adequate for proper cleaning of equipment and utensils.

(B) To prevent back siphonage of contaminated water, all water inlets to sinks, wash basins, steam tables, etc., should terminate at least 1 inch, or twice the diameter of the inlet, whichever is greater, above the overflow rim of the fixture; or a backflow preventer (vacuum breaker) should be installed on the outlet side of the water control valve, with the bottom of the backflow preventer at least four inches above the overflow rim of the fixture.



Handwashing facilities and two-compartment sink with indicating thermometer.

8. HANDWASHING FACILITIES. (A) Handwashing facilities for the exclusive use of dining car employees should be provided in the food preparation area of each car on which food or drink is prepared or served. The facilities should be located where they are readily available to food service personnel at all times. Where a permanent or semipermanent partition is provided between the kitchen and pantry of a dining car, lavatories should be provided in both areas.

(B) Handwashing facilities for the exclusive use of bar employees are not required in the bar section of cars on which drink only is prepared and served, if handwashing facilities are accessible to these employees elsewhere on the car.

(C) Handwashing facilities should include the following: (1) Wash basin of fixed or folding type, (2) hot and cold water, (3) soap holder or dispenser, (4) clean towel dispenser, and (5) soiled towel receptacle, or other suitable receptacle.

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9. CONSTRUCTION OF EQUIPMENT. (A) Material for food contact, food storage, and food working surfaces should be impervious, corrosion-resistant, smooth, easily cleaned, durable, free draining, and resistant to chipping. Joints and seams in equipment should be smooth, easily cleaned, and void of cracks or crevices. Unnecessary ledges should be eliminated, and all hollow spaces filled or enclosed. All internal corners should be rounded with a minimum radius of ¼-inch, and edges and external corners ground smooth. Where equipment meets at an angle to any other surface, a fillet of ¼-inch minimum radius should be provided.

(B) All compartments with lids should be designed with a collar or breaker strip which will prevent seepage into the compartment. Recessed or flush-type handles, if used on lids, should be constructed so as to be easily cleaned, and to prevent pooling of liquids within the recess.

(C) Water-glass filling devices should be so constructed and located as to prevent contamination of adjacent areas by water which has overflowed the glass and spilled over the hands of employees, or splashed from the drain tray. A drain from the unit should be provided.

(D) The minimum clearance between the floor and the under surface of equipment should be at least 6 inches, unless these spaces are completely enclosed. Toe space under the front surface of equipment is satisfactory.

10. EQUIPMENT FOR CLEANING AND BACTERICIDAL TREATMENT OF UTENSILS. (A) Both kitchens and pantries of food or beverage service cars should be equipped with two-compartment sinks, one of which should be of sufficient size and depth to permit the complete immersion of a basket of dishes during bactericidal treatment. In the pantry, a dish-washing machine may be substituted for the two-compartment sink. If chemicals are to be used as the bactericidal agent, three-compartment sinks should be provided.

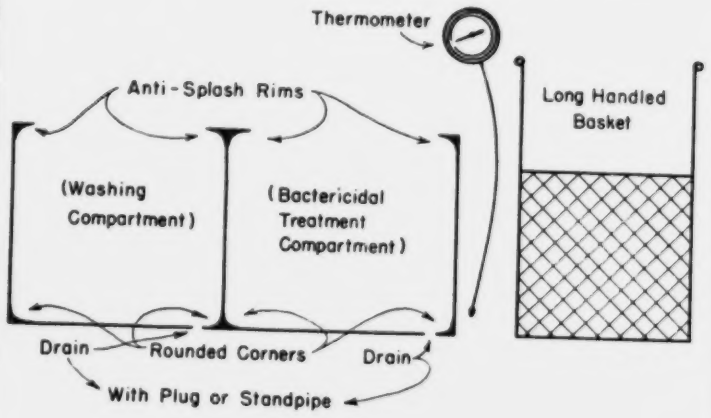
(B) The bactericidal treatment compartment of all sinks should have an effective depth 3 inches greater than the diameter of the largest dish or utensil to be treated. The compartment should also have at least four additional inches of free board depth, and an antisplash rim for the protection of employees. For plates 12 inches in diameter, for example, a bactericidal treatment compartment should have a liquid depth of 15 inches, while the minimum over-all depth to the top of antisplash rim would be 19 inches.

(C) Where a two-compartment sink is installed, the bactericidal treatment compartment should be provided with a thermometer which is accurate to within 2° F. and on which the scale divisions are not more than 2° F. Provision should be made for maintaining the water in the treatment compartment at or above 170° F. Long-handled wire baskets are essential when the hot water method of bactericidal treatment is employed.

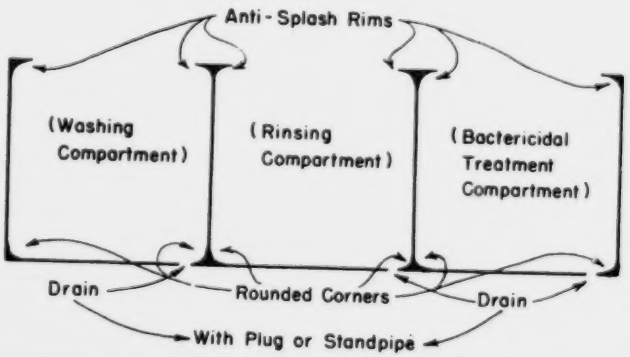
(D) Where a three-compartment sink is installed, either hot water bactericidal treatment or chemical bactericidal treatment may be used. Long-handled wire baskets, while not required for chemical bactericidal

FACILITIES FOR HAND DISHWASHING

WHEN HOT WATER IS THE BACTERICIDAL AGENT



WHEN A CHEMICAL IS THE BACTERICIDAL AGENT



treatment, are desirable in the interest of efficient operations.

(E) If dishwashing machines are installed, they should be so constructed as to be readily accessible and easily dismantled for cleaning. Such machines should clean utensils so that they look and feel clean, and should subject utensils to effective bactericidal treatment. Wash water temperature in dishwashing machines should be about 140° F. The temperature of the bactericidal rinse should be not less than 170° F. A thermometer should be provided at the inlet to the rinse jets for determining the temperature of the rinse water. While not required, a thermometer to indicate the temperature of the wash water, an automatic detergent dispenser, and thermostatic controls for the wash and rinse waters are desirable.

11. EQUIPMENT FOR STORING AND HANDLING UTENSILS AND NONPERISHABLE FOODS. (A) Storage spaces for all containers, utensils, and nonperishable foods should be provided at a distance sufficiently above the floor to insure a clean, dry place and protection from splash, dust, overhead leakage, condensation, and other contamination.

(B) Shelves should be of noncorrodible material and of easily cleanable construction. Removable rubber, corrugated metal, or other nonporous mats on shelf surfaces are acceptable. Shelves should be so constructed as to be removable or, if not removable, should have sealed joints. Fixed shelves should be constructed as to permit easy removal of small particles of food as well as water used for washing purposes.

(C) The interiors of cabinets and storage drawers (including silver drawers) should be of easily cleaned construction. Fixed felt or other porous linings are not acceptable.

(D) Knife racks should be removable and easily cleaned.

(E) Tray racks should be removable or open at the bottom for easy cleaning.

(F) If bulk ice cream is to be served, a dipper well (with running water) or other acceptable facilities should be provided for storing the dispenser.

12. EQUIPMENT FOR DISPOSAL OF WASTES FROM FOOD AND DRINK. (A) Refuse containers should be watertight, nonabsorbent, easily cleaned, and equipped with close-fitting covers.

(B) Refuse chutes should be constructed so as to be easily cleaned and so as to prevent material from falling outside of the receiving container.

(C) If a fixed compartment is provided for garbage, the interior should be accessible for easy cleaning and should be constructed so that it can be emptied only from the outside of the car. It should also be protected against freezing.

(D) If garbage grinders are used without retention tanks or devices which prevent the use of grinders when cars are in stations or servicing areas, the grinder outlets should be constructed and located so that cans or containers may be placed beneath them.

(E) In addition to the customary glass or dish washing sink in the pantries and bars, it is suggested but not required that a small waste sink be provided into which may be emptied the contents from glasses returned from dining rooms and lounges.

13. REFRIGERATION. (A) Refrigerators for the storage of perishable foods should be capable of maintaining a temperature at or below 50° F. at all times.

(B) An indicating thermometer should be provided to indicate the temperature in the warmest zone of each refrigerator, and should be placed where it can be read with ease. The thermometer should indicate the temperature in degrees Fahrenheit. The smallest scale division should be not more than 2° F., and the thermometer should be accurate within 2° F. plus or minus. Thermometers need not be installed on deep-freeze refrigerators.

(C) The interior of refrigerators should be illuminated to facilitate cleaning.

(D) Interior surfaces of a refrigerator should be smooth, nonabsorbent, easily cleaned, and light colored.

(E) When drains from ice refrigerators are designed to empty directly to the outside of the car, they should be provided with dust caps or traps containing a water seal for keeping the refrigerators free of road dust. Drains from mechanical or dry ice refrigerators are not required, but if provided, they should empty onto the floor of the kitchen, pantry, or bar.

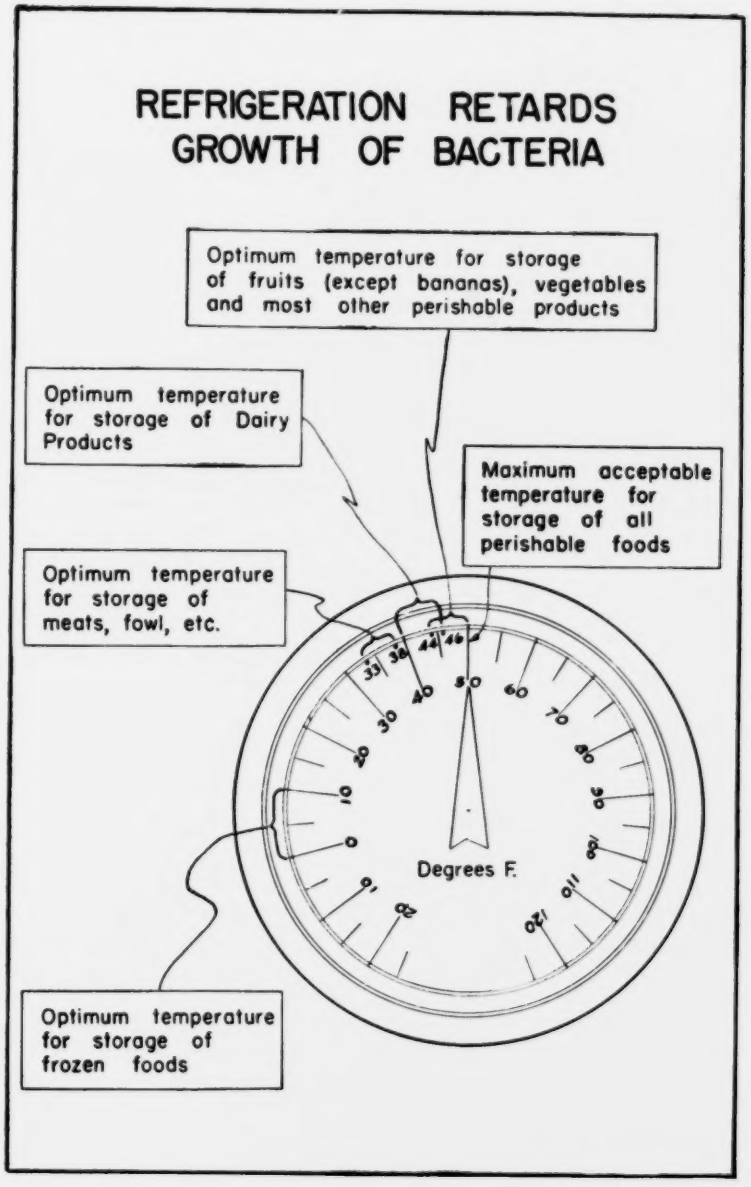
(F) Carbon dioxide from dry-ice refrigerators may be vented to the insulation of the refrigerator or to the outside of the car.

14. WHOLESOMENESS OF FOOD AND DRINK. This item is not applicable to this handbook, but it is inserted here to keep the numbering system for this handbook consistent with that followed in the handbook on "Dining Cars in Operation."

15. STORAGE AND DISPLAY OF FOOD AND DRINK. (A) Areas and equipment used for storing and displaying food or drink should protect such food or drink from dust, vermin, unnecessary handling, sprays from coughing or sneezing, overhead leakage, condensation drip, and other contamination.

(B) Except for individual containers, no water cooler or container in which ice comes in direct contact with the drinking water should be used.

(C) Unless ice is manufactured on the car, a separate sink or compartment should be provided for storing and washing ice that will come in contact with food and drink. Such sink or compartment should be provided with running water and a drain. The opening at the top of the compartment should be at least equal in area to the largest horizontal cross sectional area of the compartment. An ice scoop or tongs should be provided at the ice well. A hook, or a tapered receptacle open at the


REFRIGERATION RETARDS GROWTH OF BACTERIA
Optimum temperature for storage of fruits (except bananas), vegetables and most other perishable products
Optimum temperature for storage of Dairy Products
Maximum acceptable temperature for storage of all perishable foods
Optimum temperature for storage of meats, fowl, etc.
Optimum temperature for storage of frozen foods
Degrees F.

bottom and located outside the ice compartment, is suggested as a storage place for the ice scoop.

16. EMPLOYEE CLEANLINESS. (A) Handwashing signs should be posted or stenciled in the kitchens and pantries of all food or beverage service cars.

(B) Clothing lockers, if provided, should be well ventilated and should have no direct opening into a food-handling area.

17. MISCELLANEOUS. (A) Separate storage spaces equipped with a door or doors should be provided for storage of clean linen and soiled linen.

(B) Provision of space for storage of bedding or other materials unrelated to food preparation in the preparation areas of dining cars is not acceptable.

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